

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF TUESDAY, JANUARY 18, 1910.

Held at the American Museum of Natural History. President C. W. Leng in the chair with twenty-one members and five visitors present.

The minutes of the preceding meeting were read and approved.

The Librarian, Mr. Schaeffer, reported the receipt of the following exchanges:

Deutsche Entomol. Zeitschrift, 1909, No. 6.

Zeitschrift f. wissenschaftliche Insekten Biologie, V, No. 12.

Coleopterorum Catalogus, Pt. 4.

Tijdschrift voor Entomologie, LII, Nos. 3, 4.

The Curator, Dr. Lutz, exhibited a large map recently purchased by the museum, from which a local map, 8 × 10 inches, had been drawn and placed in the hands of the printer for reproduction.

Dr. Lutz also announced that Mr. Johnson had promised to name the Diptera belonging to the local collection.

He reported that the insect collection of the museum, with the exception of the Lepidoptera, had been moved into a room in the new wing, where those interested might consult the collection.

Dr. J. L. Zabriskie, of the Executive Committee, read the following report: "Regarding the report of the Ottawa Field Naturalists' Club, Ottawa, Canada, that this society contribute towards defraying the expense of a permanent memorial, in the form of a drinking fountain, consisting of a granite shaft with bronze medallion, inscription, etc., to be erected at the Experimental Farm, Ottawa, to commemorate the good work in furthering natural history performed by the late Dr. James Fletcher, which request was referred to your executive committee with power, the said committee reports as follows:

"At a meeting of the executive committee of the New York Entomological Society, held January 4, 1910, directly after the regular meeting of the society, it was unanimously resolved:

"This committee hereby instructs our treasurer to forward to the Ottawa Field Naturalists' Club twenty-five dollars from the funds of this society—as a contribution towards defraying the expense of the proposed memorial, and express to the Ottawa Field Naturalists Club the high esteem of the New York Entomological Society for the character and work of the late Dr. Fletcher.

J. L. ZABRISKIE,
G. W. J. ANGELL,
G. P. ENGLEHARDT,
C. L. POLLARD,
C. E. SLEIGHT."

Dr. Lutz read the following letter addressed to Mr. Jacob Doll: "The members of the New York Entomological Society have learned with deep regret of your sad bereavement and desire to express sincere sympathy with you, their fellow-member.

"On behalf of the New York Entomological Society.

FRANK E. LUTZ,
GEORGE P. ENGELHARDT,
EDMUND B. SOUTHWICK."

The president appointed as members of the auditing committee: C. F. Groth, E. L. Dickerson and F. E. Watson. As field committee, R. P. Dow and C. E. Olsen.

Mr. Leng spoke on "Some Results of Four Days' Collecting in the White Mountains," exhibiting some of the beetles found, and photographs of the mountains, loaned by Mr. John Sherman. He referred to the various lists which had been published, beginning with E. P. Austin in 1874, Mrs. Annie Trumbull Slosson, 1893, 1894 and 1895, Fred C. Bowditch in 1896 and seven additional lists by Mrs. Slosson up to 1906 and added the following species taken by him in September, 1909, at elevation of 4,000 to 5,000 ft.—*Hypolamps mellyi*, *Stenotrachelus arctatus*, *Otiorynchus ovatus*, *Piazorhinus scutellaris*, *Cyphomimus dorsalis* and *Erycus morio*.

He stated that of these only two could be regarded as boreal insects and that in the lists already published only a small part of the insects listed were boreal.

He closed by describing the open camp, called the Perch, at which he slept for three nights and the woods and mountains in its vicinity.

There followed a discussion of the stranding of certain insects on mountain tops.

Mr. Schaeffer exhibited a collection of beetles of the genus *Pogonocherus*, with all of the species represented, and spoke of the characters and distribution of the different species.

Mr. Barber spoke concerning "Some Hemiptera New to the Fauna of the United States." These were exhibited and commented upon. His remarks concerning these will be published in the body of the Journal.

Mr. Melville T. Cook in responding to a request to address the society, spoke chiefly concerning some of his work in Cuba, mentioning some of the more common insects they had to deal with, the peculiarities of the people and the characteristics of the climate and country.

Mr. Wolley Dod spoke concerning some of his collecting experiences in the Rocky Mts. of Alberta, B. C., mentioning especially some of the interesting Lepidoptera to be taken there.

Mr. John W. Angell exhibited a small collection of insects obtained from Bermuda.

Society adjourned.

MEETING OF TUESDAY, FEBRUARY 1, 1910.

Held at the American Museum of Natural History at 8.15 p. m., President C. W. Leng in the chair, with seventeen members and two visitors present.

In the absence of the secretary the president asked Mr. Dickerson to act in that capacity.

Dr. Lutz, the curator, called attention to the screen which had recently been installed for use with the lantern and exhibited the January number of the Museum Journal containing a photograph of the society's meeting room. Copies were presented for distribution among the members. He stated that a number of the maps for illustrating the local distribution of insects had been printed and on three of these indicated methods which might be used. On one the distribution of *Cicindela dorsalis* and *generosa* was shown, on another the topographical conditions and on the third the areas included by 50-mile circle. Further methods were also suggested. He stated that Dr. Petrunkevitch had corrected his copy of Emerton's "Common Spiders," bringing the nomenclature up to date.

A specimen of *Pieris oleracea* acquired by the society and taken in the vicinity of Paterson was also shown by Dr. Lutz.

Dr. Zabriskie, chairman of the executive committee, stated that the donation of \$25 to the Fletcher Memorial Fund had been forwarded by the treasurer, and read a letter from Mr. Arthur Gibson, secretary of the Memorial Fund Committee, acknowledging the receipt of this donation and thanking the society for it. Moved by Dr. Zabriskie, duly seconded, that this letter be placed on file.

Under scientific discussion and papers—Mr. Schaeffer called the society's attention to an article in a recent number of *Tijdschrift voor Entomologie* on the habits of *Methoca*, a group of parasitic Hymenoptera which oviposit on the larvæ of *Cicindela*.

Mr. Dickerson gave some notes on *Rhynchitis bicolor* which had been reported in injurious numbers at Worcester, Mass., last year, and at other times in other localities. The insect occurs widely distributed in the United States, but in his experience in New Jersey was somewhat local and commoner at some points than at others. For several years he had noted it on *Rosa rugosa* at New Brunswick, N. J., and had observed it there feeding and ovipositing on the seed capsules, the latter operation lasting somewhat over fifteen minutes, and the beak being used in making the puncture and pushing the egg into place. Beetles began to appear in May and were first observed feeding on the unopened buds. Specimens of the feeding and egg punctures, petals injured by the beetles, and the insect in the egg, larval and adult stages were exhibited.

Dr. Lutz spoke on "Notes on Evolution as Illustrated by Experiments with Insects" and said that recently there had been much discussion as to the effects of selection, and some students of evolution felt that while the soma might be affected by it the germ cells were not. Jennings had stated that nothing new was formed by selection and Pearl, of the Maine Experiment

Station, in working with poultry had obtained negative results in selecting eggs to obtain modifications in the chickens.

Dr. Lutz, himself, had been continuing his work with the fruit fly, *Drosophila ampelophila*, and by selection for decrease and increase in the number of veins had obtained results evidently not produced before in nature. He had worked with some 200,000 flies, one lot of which came from Huntington, L. I., and another from Boston and Pennsylvania. By careful selection he had obtained 100 per cent. abnormality in extra-veined specimens which he was able to continue for several generations. In like manner he was able to obtain flies with the tips of the wing veins lacking, but these possessed wings so weak that they drooped on the banana upon which the flies were fed and so were killed off and the strain could not be continued. He had been able to breed from a normal to an abnormal strain in eight generations and concluded that artificial selection had had a decided effect upon the insects. In considering the question of the abnormal strain reverting, he liberated in a battery jar, in one experiment, the most abnormal specimens of the abnormal strain and in twelve generations, covering a period of twenty-four weeks, they went back to the normal form. In a second experiment, he released in a battery jar an equal number of normal and abnormal forms and in three or four generations the flies reverted to the normal form. He believed the active force at work in these experiments was sexual selection.

Dr. Lutz then reviewed some of the facts discussed by Tower in his paper on "Evolution in the Chrysomelid Beetles in the Genus *Leptinotarsa*." Tower has pointed out that *Leptinotarsa decemlineata* has been derived from *intermedia* which has its habitat in central Mexico. The latter form spread northward along the routes of travel, where the form *decemlineata* became prominent and it in turn spread first northward along the buffalo trails and later through the introduction of the potato, eastward to the Atlantic seaboard. The form *juncta* retreated before the form *decemlineata*. In moisture and temperature experiments he found that the deviation from the normal produced first melanism and, as the deviation increased, albinism. By varying conditions of humidity and temperature and exposing females to these changed conditions for a period just preceding oviposition, forms were obtained which held their variation through several generations, even when allowed to breed under natural conditions. By abnormal environment, also, a strain having five annual generations has been obtained while three is the greatest number that naturally occurs in this group.

Mr. Leng spoke of the color variations that occurred in some of the Coccinellidæ, and asked whether Dr. Tower had obtained any structural differences. Dr. Lutz said he believed that he had.

Mr. Davis called the members' attention to Bull. No. 33 of the Louisiana Crop Pest Commission, by W. Newell, dealing with the treatment of the boll weevil by the use of powdered arsenate of lead, and also the comment upon it by Mr. Hunter in *Science*. Mr. Davis suggested that the success of this method would do away with the necessity of destroying the scenic effects necessitated by destroying the hibernating places of the insects.

Mr. Dickerson stated that powdered arsenate of lead was a comparatively new form of the substance, it having been used hitherto as a liquid spray. Meeting adjourned.

E. L. DICKERSON,
Secretary pro tem.

MEETING OF TUESDAY, FEBRUARY 15, 1910.

Held at the American Museum of Natural History, President C. W. Leng in the chair, with twenty-one members and two visitors present.

The minutes of January 18 and February 1 were read and approved.

The librarian, Mr. Schaeffer, reported the receipt of the following exchanges:

Coleopterorum Catalogus, Pars 6, 7.

Canadian Entomol., XLII, Nos. 1, 2.

Entomologisk Tidskrift, Vol. XXX, Nos. 1-4.

Societas Entomologica, XXIV, Nos. 19, 20.

Wiener Entomologische Zeitung, XXIX, No. 1.

Bull. 225 N. J. Agr. Exp. Station, Dec., 1909.

Mitteilungen aus d. Naturhist. Museum in Hamburg, XXVI, Dec., 1909.

Deutsche Entomolog. Zeitschrift, No. 1, 1910.

The curator, Dr. Lutz, exhibited and spoke concerning a series of maps, showing the distribution of the tiger beetles within the 50-mile limit, to illustrate the effectiveness of the plan to record the occurrence of our local species. These maps were prepared from records obtained in the collections of Messrs. Harris, Leng, Davis and the Staten Island Association of Natural Sciences, besides the local collection.

Mr. Davis, on behalf of the committee, exhibited a book containing the historical letters of the society. Upon motion the committee was discharged.

Mr. Schaeffer read a letter from the Russian Entomological Society, announcing the celebration of its fiftieth anniversary on March 11, and inviting the society to send a delegate to represent it.

On motion the secretary was requested to reply to the letter.

The librarian having requested more book cases, the matter was referred to the treasurer and librarian.

Mr. John Angell proposed as an active member of the society Mr. T. R. Richardson, 459 W. 123d St., New York. On motion the secretary was authorized to cast a single ballot for the election of Mr. Richardson.

Dr. Osburn suggested the securing of all the photographs of eminent entomologists and especially those of all members of the society. Dr. Love moved that Dr. Osburn be named as a committee of one to get together such a collection of photographs, to include also the photographs of ex-members and corresponding members. Carried.

Dr. R. C. Osburn exhibited a large number of diptera of the families Syrphidæ and Conopidæ belonging to the local collection, many of which Dr. Osburn has donated to make the collection more complete.

He spoke of the habits and structural characters of the more interesting species. One of these, *Tabanus zonalis*, is new to the New Jersey list of insects, having been taken by Mr. F. E. Watson at Greenwood Lake, N. J., June 30, 1909.

Mr. Alanson Skinner spoke concerning "The Use of Insects and other Invertebrates as Food by the North American Indians."

He mentioned the western tribes among whom insects are used as a food, especially locusts, maggots, crickets, ants (pismires) are most frequently employed and these might be prepared in various ways though commonly they were ground after being dried and then made into paste or dough and cooked, mixed with some other ingredients.

Mr. Sleight exhibited two cases showing the life history of several species of our local caddis flies.

Mr. William T. Davis stated that he had collected the grasshopper *Hesperotettix brevipennis* at Yaphank, Long Island, on July 27, 1909. Twelve specimens were secured in a small clump of sweet fern almost circular in form and 36 feet in diameter. The females had just matured, and there were a few nymphs. All seen were not collected, as it was thought best to preserve the little colony. No others could be found on July 27, even in neighboring clumps of sweet fern, but at a subsequent date three were found in sweet fern in the same field. Specimens have been found at Lakehurst, N. J., in August and September, and it has been reported by collectors from several localities in southern New Jersey. Prof. Morse has found it sparingly at Wellesley, Mass., but it appears to be a rather rare grasshopper and has been usually found in but small colonies.

Mr. Engelhardt exhibited two ticks, *Ornithodoros* sp., which he had received from Mexico some two months ago, alive, and considerably larger than in the present shriveled condition. They had lived for nearly the entire time without food.

Dr. Lutz exhibited an automatic folding trap lantern, and asked for suggestions for its improvement.

Society adjourned.